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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,896	10/11/2005	Naohisa Shinmura	693.011	8004

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BOYLE FREDRICKSON S.C.
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MILWAUKEE, WI 53203

EXAMINER

MULLINS, BURTON S

ART UNIT	PAPER NUMBER
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2834

NOTIFICATION DATE	DELIVERY MODE
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11/08/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@boylefred.com

Office Action Summary

Application No.

10/533,896

Applicant(s)

SHINMURA ET AL.

Examiner

Burton S. Mullins

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 21-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 10-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/05 10/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 05 May 2005 and 10 October 2007 have been considered by the examiner.

Election/Restrictions

3. Applicant's election without traverse of Group I in the reply filed on 21 August 2007 is acknowledged. Claims 21-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b).

Response to Amendment

4. The listing of claims in the reply filed on 21 August 2007 does not incorporate the changes made in the preliminary amendment filed 05 May 2005, which has been entered. Since the changes to the claims are minor (claims 2-24 include 'wherein'), in the interest of compact prosecution the reply has not been held to be non-responsive. Applicant is requested to incorporate all the changes made in the 05 May 2005 preliminary amendment in any future listing of claims to expedite prosecution.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “external connector” (claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchida (EP 0 617 213 A1). Tsuchida teaches an actuator device, comprising:

a device housing 80/12 (Fig.12);

a drive motor 60 located in the device housing;

a power transmission mechanism (speed reduction mechanism) 32/34/36/38/42/48 located in the device housing and is coupled to the drive motor (Fig.12);

an output shaft 46 coupled to the power transmission mechanism, rotation of the drive motor is transmitted to the output shaft via the power transmission mechanism (c.7:3-7; c.8:55-57; Fig.1);

a sensor (potentiometer) 74 for detecting the rotation angle of the output shaft 46 (c.8:10-27&c.8:55-c.9:1);

a sensor accommodating portion (element holding portion) 114 for accommodating the sensor 74 (Figs.12&15);

a connector portion (base board) 14/102 (Figs.1-7&12-13) including a connector housing 24 (the first embodiment will be described for convenience; it is identical to the Fig.12 second embodiment, c.10:4-15) and a connector terminal (pins) 54, which is incorporated in the connector housing and is connected to an external connector (not shown, c.7:37-46);

and a power supply portion 20 including a power supply terminal 50 (Fig.7), which is connected to the drive motor and supplies electric power to the drive motor (c.7:13-21), wherein the power supply terminal 50 and the sensor 74 are electrically connected to the connector terminal (pins) 54 (c.8:16-20), electric power is supplied to the drive motor from the outside (c.7:20-21) and a rotation angle signal obtained by the sensor is sent to the outside via the external connector and the connector terminal 54 (inherent; c.8:10-27&c.8:55-c.9:1),

and wherein the sensor accommodating portion 114, the connector portion 14/102, and the power supply portion 20 are integrally formed to form a single assembly mounted on the device housing (Figs.12-13).

Regarding claim 2, the device housing includes a first case 12 and a second case 80 (Fig.12), and when the assembly is mounted on the device housing, the first case and the second case hold the connector portion 14/102 (Fig.12).

Regarding claim 3, the device housing includes a first case 12 and a second case 80 (Fig.12), and when the assembly is mounted on the device housing, the first case and the second case hold the connector housing 24 (Fig.12).

Regarding claim 7, wherein the assembly is substantially L-shaped (Fig.5).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchida (EP 0 617 213 A1) in view of Matsuyama et al. (US 6,294,851). Tsuchida substantially teaches applicant's invention including a sensor accommodating portion, connector portion, and power supply portion; but it does not teach that these elements "are molded using resin to form the assembly".

Matsuyama teaches a resin molded terminal connector (c.1:15-20; c.2:9-34).

It would have been obvious to modify Tsuchida and provide a resin molded assembly per Matsuyama since resin-molding is a well-known method of simply producing terminal connections.

Regarding claim 9, the power supply terminal 50 and connector terminal 54 in Tsuchida are integral (Fig.7)

Allowable Subject Matter

10. Claims 4-6 and 10-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding claim 4, the prior art does not teach the claims actuator including, inter alia, one of the gears has the output shaft and includes a recess for

accommodating the sensor accommodating portion. Regarding claim 10, the prior art does not teach that the conductive plate further includes a wiring portion, the wiring portion including a connecting portion [53e-53g (Figs.1&2b)] which is connected to the sensor, and a coupling portion [53b, 53c] which can be arbitrarily cut, and the connecting state among the connecting portion, the connector terminal, and the power supply terminal is determined in accordance with the cutting state of the coupling portion. Regarding claim 13, the prior art does not teach, inter alia, the power transmission mechanism includes a motor gear attached to the rotary shaft of the drive motor and a plurality of gears forming a series of gears coupled to the motor gear, and at least one of the gears, which form the series of gears, integrally includes a depression portion for depressing the gear in the axial direction.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029.

The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public

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PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
30 October 2007